

**Elementary GLOBE
Academic Standards for
Science and Technology
Grade 4**

Discoveries at Willow Creek

3.1. Unifying Themes

- C. Illustrate patterns that regularly occur and reoccur in nature.
- D. Recognize change in natural and physical systems.

3.2. Inquiry and Design

- A. Identify and use the nature of scientific and technological knowledge.
- B. Describe objects in the world using the five senses.
- C. Recognize and use the elements of scientific inquiry to solve problems.
- D. Recognize and use the technological design process to solve problems.

3.3. Biological Sciences

- A. Know the similarities and differences of living things.
- B. Know that living things are made up of parts that have specific functions.
- C. Know that characteristics are inherited and, thus, offspring closely resemble their parents.

3.4. Physical Science, Chemistry and Physics

- B. Know basic energy types, sources and conversions.
- C. Observe and describe different types of force and motion.
- D. Describe the composition and structure of the universe and the earth's place in it.

3.5. Earth Sciences

- A. Know basic landforms and earth history.
- B. Know basic weather elements.
- C. Recognize the earth's different water resources.

3.6. Technology Education

- B. Know that information technologies involve encoding, transmitting, receiving, storing, retrieving and decoding.

3.7. Technological Devices

- A. Explore the use of basic tools, simple materials and techniques to safely solve problems.
- B. Select appropriate instruments to study materials.

The Mystery of the Missing Hummingbirds

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- D. Describe the composition and structure of the universe and the earth's place in it.

3.5. Earth Sciences

- C. Know basic weather elements.

3.7. Technological Devices

- A. Explore the use of basic tools, simple materials and techniques to safely solve problems.
- B. Select appropriate instruments to study materials.
- D. Use basic computer software.
- E. Identify basic computer communications systems.

Do You Know That Clouds Have Names?

3.1. Unifying Themes

- C. Illustrate patterns that regularly occur and reoccur in nature.
- D. Know that scale is an important attribute of natural and human made objects, events and phenomena.
- E. Recognize change in natural and physical systems.

3.2. Inquiry and Design

- A. Identify and use the nature of scientific and technological knowledge.
- B. Describe objects in the world using the five senses.
- C. Recognize and use the elements of scientific inquiry to solve problems.

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- C. Know basic weather elements.
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The Scoop On Soil

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- D. Recognize and use the technological design process to solve problems.

3.4. Physical Science, Chemistry and Physics

- A. Recognize basic concepts about the structure and properties of matter.

3.5. Earth Sciences

- A. Know basic landforms and earth history.
- B. Know types and uses of earth materials.

3.7. Technological Devices

- A. Explore the use of basic tools, simple materials and techniques to safely solve problems.
- B. Select appropriate instruments to study materials.

All About Earth

3.1. Unifying Themes

- A. Know that natural and human-made objects are made up of parts.
- B. Know models as useful simplifications of objects or processes.
- C. Illustrate patterns that regularly occur and reoccur in nature.
- E. Recognize change in natural and physical systems.

3.2. Inquiry and Design

- A. Identify and use the nature of scientific and technological knowledge.
- B. Describe objects in the world using the five senses.
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**Elementary GLOBE
Academic Standards for
Environment & Ecology
Grade 4**

Discoveries at Willow Creek

- 4.1. Watersheds and Wetlands**
 - B. Explain the differences between moving and still water.
 - C. Identify living things found in water environments.
- 4.2. Renewable and Nonrenewable Resources**
 - A. Identify needs of people.
 - C. Know that some natural resources have limited life spans.
- 4.3. Environmental Health**
 - A. Know that plants, animals and humans are dependent on air and water.
 - C. Understand that the elements of natural systems are interdependent.
- 4.6. Ecosystems and their Interactions**
 - A. Understand that living things are dependent on nonliving things in the environment for survival.
 - B. Understand the concept of cycles.
 - C. Identify how ecosystems change over time.
- 4.8. Humans and the Environment**
 - A. Identify the biological requirements of humans.
 - B. Know that environmental conditions influence where and how people live.
 - C. Explain how human activities may change the environment.
 - D. Know the importance of natural resources in daily life.

The Mystery of the Missing Hummingbirds

- 4.6. Ecosystems and their Interactions**
 - A. Understand that living things are dependent on nonliving things in the environment for survival.
 - B. Understand the concept of cycles.
 - C. Identify how ecosystems change over time.
- 4.7. Threatened, Endangered and Extinct Species**
 - A. Identify differences in living things.
 - B. Know that adaptations are important for survival.

Do You Know That Clouds Have Names?

4.8. Humans and the Environment

- C. Explain how human activities may change the environment.

The Scoop On Soil

4.2. Renewable and Nonrenewable Resources

- A. Identify needs of people.
- C. Know that some natural resources have limited life spans.

4.3. Environmental Health

- A. Know that plants, animals and humans are dependent on air and water.
- C. Understand that the elements of natural systems are interdependent.

4.4. Agriculture and Society

- A. Know the importance of agriculture to humans.

4.6. Ecosystems and their Interactions

- A. Understand that living things are dependent on nonliving things in the environment for survival.
- C. Identify how ecosystems change over time.

4.8. Humans and the Environment

- A. Identify the biological requirements of humans.
- B. Know that environmental conditions influence where and how people live.
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All About Earth

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A. Identify the biological requirements of humans.

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C. Explain how human activities may change the environment.

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